

ON A NEW GENUS OF WATER BEETLES (DYTISCIDAE)

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Text fig. 106.

DURING a recent visit of Australian ornithologists and other naturalists to Dungog, in New South Wales, Mr. Charles Barrett obtained some small and singularly interesting water beetles. They have sharply-defined pairs of geminate striae on the elytra, such as are common on many Melolonthides of the Scarabaeidae, but an approach to a structure of a similar nature does not appear to be known in water beetles from any part of the world. In many characters, however, they are allied to *Antiporus*. Subsequently specimens were obtained from Mr. H. J. Carter and Mr. John Hopson. Two species were taken, readily distinguished, *inter se*, by the front tibiae of the males and by the spots on the elytra. They were obtained when searching for *Dryopidae*, and of them Mr. Hopson wrote: "The eight-spotted ones are rather plentiful in the cracks of wood lying in still water; the four-spotted ones are not so plentiful."

BARRETTYDRUS gen. nov.

Each elytron with five pairs of geminate striae.

This character alone is sufficient to distinguish the genus from all others recorded from Australasia, and all of those described or figured by Sharp. The under parts approach those of *Necterosoma* and *Antiporus*, near which the genus should be placed. From the former (apart from the elytra) it is distinct by the fourth tarsal joint of the front legs not passing beyond the lobes of the third, although fairly distinct, despite its minute size; the claw joint is also decidedly shorter. The tarsi are much like those of *Antiporus*. The short basal striae of the pronotum, the intercoxal process of the prosternum and other parts of the under-surface denote an approach to *Bidessus*.

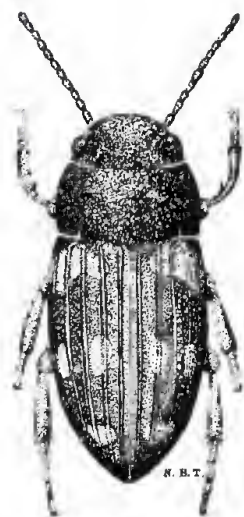


Fig. 106. *B. geminatus*.
× 10.

Type of genus, *B. geminatus*.

BARRETTYDRUS GEMINATUS sp. nov.

♂ Black, shining; antennae, palpi, tarsi, knees, and trochanters reddish; elytra with three series of flavous spots.

Head with crowded small punctures, with two feeble oblique impressions ending in shallow impressions near eyes. Antennae thin, extending to about middle of metasternum. Prothorax more than three as wide as long, sides finely margined; with dense punctures, somewhat larger than on head, and usually sharply defined, but becoming irregular about base. Elytra widest at about basal fourth, each with five well-defined pairs of geminate striae, punctures crowded and small, only sharply defined near sides; epipleurae sharply defined. Prosternum with a narrow, lanceolate intercoxal process, shallowly depressed along its middle, and meeting a raised prosternal process. Legs moderately long, front tibiae moderately curved, with a small tooth at the basal third, middle pair rather wide, bisinuate on lower edge; front tarsi with three basal joints inflated, fourth minute, fifth almost as long as first and second combined; hind tarsi with joints regularly decreasing in length, but the fifth almost twice the length of the fourth. Length, 3-3.25 mm.

♀ Differs in being slightly more robust, front tibiae simple, middle tibiae thinner, and tarsi not dilated.

Hab. New South Wales: Dungog in October (C. Barrett and H. J. Carter); Allyn River (H. J. Carter and J. Hopson).

On the elytra the markings consist of an irregular basal fascia, interrupted before the suture, and not touching the sides, a series of four rather small postmedian spots each usually longer than wide, and two subapical spots somewhat larger than the postmedian ones. The tip of the abdomen is usually obscurely reddish. On the base of the prothorax the punctures are irregular, and at one-third from each side there is a feeble basal stria, fairly well defined on some specimens, scarcely traceable on others, many of the adjacent punctures are more or less longitudinally confluent. The under-surface has a shagreened appearance, owing to the small size, and crowded and irregular punctures. The tooth of the front tibiae of the male is small and acute, but being at the position where the incurvature is strongest, is concealed from most directions.

BARRETHYDRUS TIBIALIS sp. nov.

♂ Black; antennae, palpi, most of legs, and tip of abdomen reddish, elytra with four flavous spots.

Head with several feeble impressions. Prothorax with crowded punctures becoming longitudinally confluent about base, with a moderately distinct basal stria slightly nearer each side than the middle. Elytra with five pairs of geminate striae. Front tibiae suddenly bent (almost at right angles) in middle, where there is a deep notch, bounded by a strong tooth; front tarsi moderately dilated; middle tibiae rather wide and flat, except close to base. Length, 3.5 mm.

♀ Differs in having front tibiae simple, the middle pair less dilated, and all the tarsi thinner.

Hab. New South Wales: Allyn River at Eccleston (H. J. Carter and J. Hopson).

In general appearance much like the preceding species, and with very similar punctures, antennae, and under-surface, but somewhat narrower, and with different front legs, etc. Of the elytral striae the first and second pairs are conjoined near apex, also the third and fifth, but of these the fifth pair vanish before the middle; on the preceding species the fifth is well defined throughout, except that it is rather weak posteriorly. Of the elytral spots there are two large humeral ones; the others are about half their size, and placed at the apical third, midway between the suture and sides, their positions being intermediate between the postmedian and subapical spots of the preceding species. The middle tibiae are more flattened and less bisinuate on the lower surface, and the front tarsi are less dilated.